

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3113266	Carbon supported palladium catalyst	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:03
L2	10788	I1 and (dichlorodifluoromethane or 1,1-dichloro-1,1-difluoromethane)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:05
L3	24	I12 and reactor	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:09
L4	837	alluminum isoproxide	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:10
L5	1840734	activated carbon	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:10
L6	146407	palladium	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:11
L7	239	I4 and catalyst	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:11
L8	303545	I5 and catalyst	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:11
L9	88404	I6 and catalyst	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:12
L10	73	I7 and I8 and I9	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:13
L11	0	I10 and dichlorodifluoromethane	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:12
L12	0	I10 and hydrodechlorination	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 07:13

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S38	822782	ALUMINUM ISOPROPYLOXIDE	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 10:33
S39	126283	S38 AND CATALYST	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 10:33
S40	102905	S39 AND (ACTIVATED CARBON)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 10:34
S41	722102	S40 AND PALLADIUM CATALYST	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 10:35
S42	102905	S40 AND (PALLADIUM CATALYST)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 10:36
S43	55	S42 AND HYDRODECHLORINATION	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/05/09 11:30

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NEWS	11	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	12	MAR 22	PATDPASPC - New patent database available
NEWS	13	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	14	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	15	APR 04	EMBASE - Database reloaded and enhanced
NEWS	16	APR 18	New CAS Information Use Policies available online
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DICTIONARY FILE UPDATES: 8 MAY 2005 HIGHEST RN 850006-33-6

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\*  
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\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> S ALUMINUM ISOPROPOXIDE

219466 ALUMINUM

256 ISOPROPOXIDE

L1 38 ALUMINUM ISOPROPOXIDE  
(ALUMINUM(W) ISOPROPOXIDE)

=> S PALLADIUM PRECURSOR

99821 PALLADIUM

102758 PRECURSOR

L2 0 PALLADIUM PRECURSOR  
(PALLADIUM(W) PRECURSOR)

=> S PALLADIUM CATALYST

99821 PALLADIUM

665 CATALYST

L3 0 PALLADIUM CATALYST  
(PALLADIUM(W) CATALYST)

=> S PALLADIUM (W) PRECURSOR

99821 PALLADIUM

102758 PRECURSOR

L4 0 PALLADIUM (W) PRECURSOR

=> S PALLADIUM AND CATALYST  
99821 PALLADIUM  
665 CATALYST  
L5 2 PALLADIUM AND CATALYST

=> S L1 AND L5  
L6 0 L1 AND L5

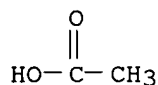
=> S L1 AND PALLADIUM  
99821 PALLADIUM  
L7 1 L1 AND PALLADIUM

=> D L7

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 39393-92-5 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN 2-Propenoic acid, homopolymer, compd. with palladium(2+) diacetate  
and 2-propanol aluminum salt (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2-Propanol, aluminum salt, compd. with palladium(2+) diacetate and  
2-propenoic acid homopolymer (9CI)  
CN Acetic acid, palladium(2+) salt, compd. with 2-propanol aluminum salt  
and 2-propenoic acid homopolymer (9CI)  
OTHER NAMES:  
CN Poly(acrylic acid) compd. with palladium acetate and aluminum  
isopropoxide  
MF C3 H8 O . x (C3 H4 O2)x . x C2 H4 O2 . 1/3 Al . x Pd  
PCT Polyacrylic  
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB

CM 1

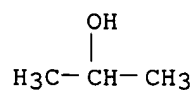
CRN 3375-31-3 (64-19-7)  
CMF C2 H4 O2 . 1/2 Pd



● 1/2 Pd(II)

CM 2

CRN 555-31-7 (67-63-0)  
CMF C3 H8 O . 1/3 Al



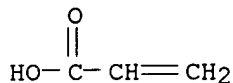
● 1/3 Al

CM 3

CRN 9003-01-4  
CMF (C3 H4 O2)x  
CCI PMS

CM 4

CRN 79-10-7  
CMF C3 H4 O2



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FILE CAPLUS  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
55.88	56.09

FULL ESTIMATED COST

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FILE COVERS 1907 - 9 May 2005 VOL 142 ISS 20  
FILE LAST UPDATED: 8 May 2005 (20050508/ED)

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=> S L7  
L8 1 L7

=> D L8 ABS IBIB

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN  
AB Metal-containing polymer compns., potentially useful as catalysts were prepared by combining metals or oxides or salts with carboxyl-substituted polymers and optionally with inorg. supports, and thermally decarboxylating if desired. Thus, 2000 ml aqueous poly(acrylic acid) [9003-01-4] (mol. weight 1,000,000) solution containing 0.55 acid equivalent was mixed over 2 hr with 0.65

mole nickel hexanoate [16034-23-4] in 2000 ml dioxane and the precipitate dried at 100.deg., giving 29 g blue-green powder with sp. pore volume 0.16 ml/g, sp. surface 125 m<sup>2</sup>/g, average pore diameter 70.ang., and Ni content 17.4% weight A

similar product, not dried as thoroughly, was decarboxylated 14 hr at 350.deg. and 2 hr at 375.deg., giving 65% wt. loss and a product with Ni content 52.4% and pore volume 0.15 ml/g. The products were useful as hydrogenation, oxidation, and cyclodehydration catalysts.

ACCESSION NUMBER: 1973:44295 CAPLUS  
DOCUMENT NUMBER: 78:44295  
TITLE: Metal-containing, polymer-based solid preparation  
INVENTOR(S): Leonard, William John, Jr.; Holler, Howard V. A.  
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij N. V.  
SOURCE: Ger. Offen., 50 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2213485		19720928		
CA 958150			CA	
CA 967934			CA	
FR 2130465			FR	
GB 1393005			GB	
NL 7203665			NL	
US 3779952		19730000	US	
PRIORITY APPLN. INFO.:			US 1971-126736	19710322

=> S ALUMINUM ISOPROPOXIDE  
873593 ALUMINUM  
8153 ISOPROPOXIDE  
L9 2402 ALUMINUM ISOPROPOXIDE  
(ALUMINUM(W) ISOPROPOXIDE)

=> S PALLADIUM PRECURSOR  
148022 PALLADIUM  
222213 PRECURSOR  
L10 60 PALLADIUM PRECURSOR  
(PALLADIUM(W) PRECURSOR)

=> S L9 AND L10  
L11 0 L9 AND L10

=> L9 AND HYDRODECHLORINATION  
L9 IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the system.  
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=> S L9 AND HYDRODECHLORINATION  
640 HYDRODECHLORINATION  
L12 2 L9 AND HYDRODECHLORINATION

=> D L12 ABS IBIB

L12 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
AB Several alumina, titania, zirconia and silica xerogels modified with approx. 0.05% Pd or 0.05% Ni were synthesized by co-gellation and conventional impregnation methods using Pd acetylacetonate and Ni

acetylacetonate as precursors. Thermolysis of supported complexes was conducted in static air at 300 and 350° for Pd and Ni loaded samples, resp. The resulting catalysts were characterized by x-ray diffraction, XRF, BET, TPR, and tested in the vapor phase **hydrodechlorination** of dichloromethane (DCM) with mol. hydrogen. Prior to reaction, catalysts were reduced at 300° in 5% H<sub>2</sub>/He. The synthetic mixture consisted of 1200 ppm CH<sub>2</sub>Cl<sub>2</sub>, 1.2% H<sub>2</sub> and balance He at a space velocity of 0.005 g min ml<sup>-1</sup>. Palladium supported catalysts were more active than those containing nickel, i.e., DCM conversions at 200° over Pd(I)-Al<sub>2</sub>O<sub>3</sub> almost doubled those obtained over Ni(I)-Al<sub>2</sub>O<sub>3</sub> and no intermediate reaction products were observed over Pd supported catalysts whereas CH<sub>3</sub>Cl was formed over nickel catalysts. A comparison of the specific activity of catalysts expressed as TOF, indicate that the observed differences in activity are related to the nature of the support and the accessibility of the metal to the fluid phase, even though textural properties also appear to play a role. The most active catalyst, Pd impregnated on sol-gel titania (Pd(I)-TiO<sub>2</sub>) had an initial specific activity of 0.36 s<sup>-1</sup> but, it deactivated considerably after a 48 h exposure to 1200 ppm DCM or by thermolysis of the Pd precursor in static air at 600°. Although Pd impregnated in sol-gel alumina exhibited lower activity, it was much more stable than Pd(I)-TiO<sub>2</sub>.

ACCESSION NUMBER: 2004:831040 CAPLUS  
DOCUMENT NUMBER: 142:281914  
TITLE: Screening of Pd and Ni supported on sol-gel derived oxides for dichloromethane **hydrodechlorination**  
AUTHOR(S): Aristizabal, Beatriz; Gonzalez, Carlos Andres; Barrio, Izaskun; Montes, Mario; Montes de Correa, Consuelo  
CORPORATE SOURCE: Chemical Engineering Department, Universidad de Antioquia, Medellin, Colombia  
SOURCE: Journal of Molecular Catalysis A: Chemical (2004), 222(1-2), 189-198  
CODEN: JMCCF2; ISSN: 1381-1169  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D HIS

(FILE 'HOME' ENTERED AT 11:38:07 ON 09 MAY 2005)

FILE 'REGISTRY' ENTERED AT 11:38:20 ON 09 MAY 2005

L1 38 S ALUMINUM ISOPROPOXIDE  
L2 0 S PALLADIUM PRECURSOR  
L3 0 S PALLADIUM CATALYST  
L4 0 S PALLADIUM (W) PRECURSOR  
L5 2 S PALLADIUM AND CATALYST  
L6 0 S L1 AND L5  
L7 1 S L1 AND PALLADIUM

FILE 'CAPLUS' ENTERED AT 11:43:04 ON 09 MAY 2005

L8 1 S L7  
L9 2402 S ALUMINUM ISOPROPOXIDE  
L10 60 S PALLADIUM PRECURSOR  
L11 0 S L9 AND L10  
L12 2 S L9 AND HYDRODECHLORINATION

=> S ALUMINUM ISOPROPOXIDE

873593 ALUMINUM

8153 ISOPROPOXIDE

L13 2402 ALUMINUM ISOPROPOXIDE



(ALUMINUM(W) ISOPROPOXIDE)

=> S L13 ACTIVATED CARBON

MISSING OPERATOR L13 ACTIVATED

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> S L13 AND ACTIVATED CARBON

461172 ACTIVATED

1117224 CARBON

41368 ACTIVATED CARBON

(ACTIVATED(W) CARBON)

L14 4 L13 AND ACTIVATED CARBON

=> D L14 1-4 ABS IBIB

L14 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AB The title catalyst is made by simultaneously impregnating activated C with a Pd precursor and an Al precursor. The C-supported Pd catalyst is useful for the hydrodechlorination of dichlorodifluoromethane to produce difluoromethane. The combined beneficial properties of both alumina and palladium and **activated carbon** to secure greater dispersion of alumina are an added advantage. The conversion of CFC-12 is on the order of 85% and the selectivity to HFC-32 is on the order of 85% at atmospheric pressure.

ACCESSION NUMBER: 2003:319493 CAPLUS

DOCUMENT NUMBER: 138:323029

TITLE: Synthesis of highly-active Al-modified carbon-supported palladium catalyst

INVENTOR(S): Murthy, Janmanchi K.; Shekar, Sridara C.; Ramarao, Kamaraju S.; Raju, Burri D.; Raghavan, Kondapuram V.

PATENT ASSIGNEE(S): India

SOURCE: U.S. Pat. Appl. Publ., 4 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003078461	A1	20030424	US 2001-983230	20011023
US 6624109	B2	20030923		
EP 1308206	A1	20030507	EP 2001-309134	20011029
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC; PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003126692	A2	20030507	JP 2001-332138	20011030
PRIORITY APPLN. INFO.:			US 2001-983230	A 20011023
OTHER SOURCE(S):	CASREACT 138:323029			

L14 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AB Thermal and catalytic cracking of both high and low-d. polyethylene (HDPE and LDPE, resp.) under mild conditions have been investigated in order to study the properties of the solid waxy product so obtained. The catalysts employed were nanometer HZSM-5 and HY zeolites, amorphous silica-alumina, **activated carbon**, Pd charcoal powder and mesoporous aluminosilicate materials (MCM-41), with and without impregnated Pd. The best results achieved in the LDPE degradation with regard to stability and homogeneity of the waxy product were obtained using MCM-41 as catalyst. The high BET surface area, uniform mesoporosity and medium acid strength of this catalyst promotes the polymer cracking according to a random scission mechanism, as well as; the development of hydrogen transfer reactions which reduce the olefinic character of the solid product. On

the other hand, the product obtained from HDPE has a higher homogeneity than that coming from LDPE, leading to a waxy product with better quality for potential applications.

ACCESSION NUMBER: 2001:256708 CAPLUS  
DOCUMENT NUMBER: 134:367650  
TITLE: Thermal and catalytic cracking of polyethylene under mild conditions  
AUTHOR(S): Van Grieken, R.; Serrano, D. P.; Aguado, J.; Garcia, R.; Rojo, C.  
CORPORATE SOURCE: Department of Experimental Sciences and Engineering, ESCET, Rey Juan Carlos University, Madrid, 28933, Spain  
SOURCE: Journal of Analytical and Applied Pyrolysis (2001), 58-59, 127-142  
CODEN: JAAPDD; ISSN: 0165-2370  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AB A crack-free  $\text{LiAlO}_2$  monolith was prepared from lithium isopropoxide and **aluminum isopropoxide** by sol-gel processing using a drying control chemical additive (oxalic acid or DMF). The amorphous monolithic gel began to be transformed directly to  $\gamma\text{-LiAlO}_2$  from 500°. At 600°,  $\text{LiAl}_5\text{O}_8$  started to appear, which was an indication of Li evaporation. The addition of a drying control chemical additive did not influence the formation of  $\gamma\text{-LiAlO}_2$  phase. DMF, used as a drying control chemical additive, was effective in decreasing cracks. Not only the increase of pore size, which resulted in decreased capillary stress, but also the narrowed pore size distribution, which resulted in decreased difference in capillary stress, made DMF effective in decreasing cracks. **Activated carbon** was also found to be a good additive for controlling porosity over a wide range.

ACCESSION NUMBER: 1996:739231 CAPLUS  
DOCUMENT NUMBER: 126:35606  
TITLE: Preparation of lithium aluminate monolith of controlled porosity by a sol-gel method  
AUTHOR(S): Jung, Jae-Myong; Park, Seung-Bin  
CORPORATE SOURCE: Dep. Chem. Eng., Korea Advanced Inst. Sci. Technol., Taejon, 305-701, S. Korea  
SOURCE: Journal of Materials Science Letters (1996), 15(22), 2012-2015  
CODEN: JMSLD5; ISSN: 0261-8028  
PUBLISHER: Chapman & Hall  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L14 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AB The manufacture involves the following steps; (1) separately arranging activated C and metal alkoxides in sealed containers or in dry gas flow, (2) allowing the metal alkoxides to vaporize which are adsorbed by the activated C, and (3) contacting the activated C with water vapor to hydrolyze the metal alkoxides. The activated C is useful for adsorbents, catalyst supports, and other functional materials.

ACCESSION NUMBER: 1996:693867 CAPLUS  
DOCUMENT NUMBER: 125:332628  
TITLE: Manufacture of **activated carbon** carrying metal oxides  
INVENTOR(S): Nakajima, Keihachiro; Okada, Kaoru  
PATENT ASSIGNEE(S): Shinoji Seishi Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08245210	A2	19960924	JP 1995-49716	19950309
PRIORITY APPLN. INFO.:			JP 1995-49716	19950309

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(ROSPATENT) added to list of core patent offices covered  
NEWS 4 FEB 28 PATDPAFULL - New display fields provide for legal status  
data from INPADOC  
NEWS 5 FEB 28 BABS - Current-awareness alerts (SDIs) available  
NEWS 6 FEB 28 MEDLINE/LMEDLINE reloaded  
NEWS 7 MAR 02 GBFULL: New full-text patent database on STN  
NEWS 8 MAR 03 REGISTRY/ZREGISTRY - Sequence annotations enhanced  
NEWS 9 MAR 03 MEDLINE file segment of TOXCENTER reloaded  
NEWS 10 MAR 22 KOREAPAT now updated monthly; patent information enhanced  
NEWS 11 MAR 22 Original IDE display format returns to REGISTRY/ZREGISTRY  
NEWS 12 MAR 22 PATDPASPC - New patent database available  
NEWS 13 MAR 22 REGISTRY/ZREGISTRY enhanced with experimental property tags  
NEWS 14 APR 04 EPFULL enhanced with additional patent information and new  
fields  
NEWS 15 APR 04 EMBASE - Database reloaded and enhanced  
NEWS 16 APR 18 New CAS Information Use Policies available online  
NEWS 17 APR 25 Patent searching, including current-awareness alerts (SDIs),  
based on application date in CA/CAPLUS and USPATFULL/USPAT2  
may be affected by a change in filing date for U.S.  
applications.  
NEWS 18 APR 28 Improved searching of U.S. Patent Classifications for  
U.S. patent records in CA/CAPLUS  
  
NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

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STRUCTURE FILE UPDATES: 8 MAY 2005 HIGHEST RN 850006-33-6

DICTIONARY FILE UPDATES: 8 MAY 2005 HIGHEST RN 850006-33-6

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TS/CA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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conducting SmartSELECT searches.

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\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> S ALUMINUM ISOPROPOXIDE

219466 ALUMINUM

256 ISOPROPOXIDE

L1 38 ALUMINUM ISOPROPOXIDE

(ALUMINUM(W) ISOPROPOXIDE)

=> S PALLADIUM PRECURSOR

99821 PALLADIUM

102758 PRECURSOR

L2 0 PALLADIUM PRECURSOR

(PALLADIUM(W) PRECURSOR)

=> S PALLADIUM CATALYST

99821 PALLADIUM

665 CATALYST

L3 0 PALLADIUM CATALYST

(PALLADIUM(W) CATALYST)

=> S PALLADIUM (W) PRECURSOR

99821 PALLADIUM

102758 PRECURSOR

L4 0 PALLADIUM (W) PRECURSOR

=> S PALLADIUM AND CATALYST  
99821 PALLADIUM  
665 CATALYST  
L5 2 PALLADIUM AND CATALYST

=> S L1 AND L5  
L6 0 L1 AND L5

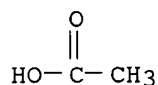
=> S L1 AND PALLADIUM  
99821 PALLADIUM  
L7 1 L1 AND PALLADIUM

=> D L7

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN  
RN 39393-92-5 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN 2-Propenoic acid, homopolymer, compd. with palladium(2+) diacetate  
and 2-propanol aluminum salt (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2-Propanol, aluminum salt, compd. with palladium(2+) diacetate and  
2-propenoic acid homopolymer (9CI)  
CN Acetic acid, palladium(2+) salt, compd. with 2-propanol aluminum salt  
and 2-propenoic acid homopolymer (9CI)  
OTHER NAMES:  
CN Poly(acrylic acid) compd. with palladium acetate and aluminum  
isopropoxide  
MF C3 H8 O . x (C3 H4 O2)x . x C2 H4 O2 . 1/3 Al . x Pd  
PCT Polyacrylic  
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB

CM 1

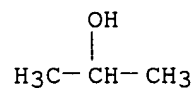
CRN 3375-31-3 (64-19-7)  
CMF C2 H4 O2 . 1/2 Pd



● 1/2 Pd(II)

CM 2

CRN 555-31-7 (67-63-0)  
CMF C3 H8 O . 1/3 Al



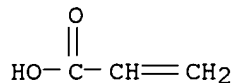
● 1/3 Al

CM 3

CRN 9003-01-4  
CMF (C3 H4 O2)x  
CCI PMS

CM 4

CRN 79-10-7  
CMF C3 H4 O2



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FILE CAPLUS

COST IN U.S. DOLLARS

SINCE FILE

ENTRY

TOTAL

SESSION

FULL ESTIMATED COST

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56.09

FILE 'CAPLUS' ENTERED AT 11:43:04 ON 09 MAY 2005

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FILE COVERS 1907 - 9 May 2005 VOL 142 ISS 20

FILE LAST UPDATED: 8 May 2005 (20050508/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L7

L8 1 L7

=> D L8 ABS IBIB

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

AB Metal-containing polymer compns., potentially useful as catalysts were prepared by combining metals or oxides or salts with carboxyl-substituted polymers and optionally with inorg. supports, and thermally decarboxylating if desired. Thus, 2000 ml aqueous poly(acrylic acid) [9003-01-4] (mol. weight 1,000,000) solution containing 0.55 acid equivalent was mixed over 2 hr with 0.65

mole nickel hexanoate [16034-23-4] in 2000 ml dioxane and the precipitate dried at 100.deg., giving 29 g blue-green powder with sp. pore volume 0.16 ml/g, sp. surface 125 m<sup>2</sup>/g, average pore diameter 70.ang., and Ni content 17.4% weight A

similar product, not dried as thoroughly, was decarboxylated 14 hr at 350.deg. and 2 hr at 375.deg., giving 65% wt. loss and a product with Ni content 52.4% and pore volume 0.15 ml/g. The products were useful as hydrogenation, oxidation, and cyclodehydration catalysts.

ACCESSION NUMBER: 1973:44295 CAPLUS  
DOCUMENT NUMBER: 78:44295  
TITLE: Metal-containing, polymer-based solid preparation  
INVENTOR(S): Leonard, William John, Jr.; Holler, Howard V. A.  
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij N. V.  
SOURCE: Ger. Offen., 50 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2213485		19720928		
CA 958150			CA	
CA 967934			CA	
FR 2130465			FR	
GB 1393005			GB	
NL 7203665			NL	
US 3779952		19730000	US	
PRIORITY APPLN. INFO.:			US 1971-126736	19710322

=> S ALUMINUM ISOPROPOXIDE  
873593 ALUMINUM  
8153 ISOPROPOXIDE  
L9 2402 ALUMINUM ISOPROPOXIDE  
(ALUMINUM(W) ISOPROPOXIDE)

=> S PALLADIUM PRECURSOR  
148022 PALLADIUM  
222213 PRECURSOR  
L10 60 PALLADIUM PRECURSOR  
(PALLADIUM(W) PRECURSOR)

=> S L9 AND L10  
L11 0 L9 AND L10

=> L9 AND HYDRODECHLORINATION  
L9 IS NOT A RECOGNIZED COMMAND  
The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> S L9 AND HYDRODECHLORINATION  
640 HYDRODECHLORINATION  
L12 2 L9 AND HYDRODECHLORINATION

=> D L12 ABS IBIB

L12 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
AB Several alumina, titania, zirconia and silica xerogels modified with approx. 0.05% Pd or 0.05% Ni were synthesized by co-gellation and conventional impregnation methods using Pd acetylacetonate and Ni



acetylacetonate as precursors. Thermolysis of supported complexes was conducted in static air at 300 and 350° for Pd and Ni loaded samples, resp. The resulting catalysts were characterized by x-ray diffraction, XRF, BET, TPR, and tested in the vapor phase **hydrodechlorination** of dichloromethane (DCM) with mol. hydrogen. Prior to reaction, catalysts were reduced at 300° in 5% H<sub>2</sub>/He. The synthetic mixture consisted of 1200 ppm CH<sub>2</sub>Cl<sub>2</sub>, 1.2% H<sub>2</sub> and balance He at a space velocity of 0.005 g min ml<sup>-1</sup>. Palladium supported catalysts were more active than those containing nickel, i.e., DCM conversions at 200° over Pd(I)-Al<sub>2</sub>O<sub>3</sub> almost doubled those obtained over Ni(I)-Al<sub>2</sub>O<sub>3</sub> and no intermediate reaction products were observed over Pd supported catalysts whereas CH<sub>3</sub>Cl was formed over nickel catalysts. A comparison of the specific activity of catalysts expressed as TOF, indicate that the observed differences in activity are related to the nature of the support and the accessibility of the metal to the fluid phase, even though textural properties also appear to play a role. The most active catalyst, Pd impregnated on sol-gel titania (Pd(I)-TiO<sub>2</sub>) had an initial specific activity of 0.36 s<sup>-1</sup> but, it deactivated considerably after a 48 h exposure to 1200 ppm DCM or by thermolysis of the Pd precursor in static air at 600°. Although Pd impregnated in sol-gel alumina exhibited lower activity, it was much more stable than Pd(I)-TiO<sub>2</sub>.

ACCESSION NUMBER: 2004:831040 CAPLUS  
DOCUMENT NUMBER: 142:281914  
TITLE: Screening of Pd and Ni supported on sol-gel derived oxides for dichloromethane **hydrodechlorination**  
AUTHOR(S): Aristizabal, Beatriz; Gonzalez, Carlos Andres; Barrio, Izaskun; Montes, Mario; Montes de Correa, Consuelo  
CORPORATE SOURCE: Chemical Engineering Department, Universidad de Antioquia, Medellin, Colombia  
SOURCE: Journal of Molecular Catalysis A: Chemical (2004), 222(1-2), 189-198  
CODEN: JMCCF2; ISSN: 1381-1169  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D HIS

(FILE 'HOME' ENTERED AT 11:38:07 ON 09 MAY 2005)

FILE 'REGISTRY' ENTERED AT 11:38:20 ON 09 MAY 2005

L1 38 S ALUMINUM ISOPROPOXIDE  
L2 0 S PALLADIUM PRECURSOR  
L3 0 S PALLADIUM CATALYST  
L4 0 S PALLADIUM (W) PRECURSOR  
L5 2 S PALLADIUM AND CATALYST  
L6 0 S L1 AND L5  
L7 1 S L1 AND PALLADIUM

FILE 'CAPLUS' ENTERED AT 11:43:04 ON 09 MAY 2005

L8 1 S L7  
L9 2402 S ALUMINUM ISOPROPOXIDE  
L10 60 S PALLADIUM PRECURSOR  
L11 0 S L9 AND L10  
L12 2 S L9 AND HYDRODECHLORINATION

=> S ALUMINUM ISOPROPOXIDE

873593 ALUMINUM

8153 ISOPROPOXIDE

L13 2402 ALUMINUM ISOPROPOXIDE

(ALUMINUM(W) ISOPROPOXIDE)

=> S L13 ACTIVATED CARBON

MISSING OPERATOR L13 ACTIVATED

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> S L13 AND ACTIVATED CARBON

461172 ACTIVATED

1117224 CARBON

41368 ACTIVATED CARBON

(ACTIVATED(W) CARBON)

L14 4 L13 AND ACTIVATED CARBON

=> D L14 1-4 ABS IBIB

L14 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AB The title catalyst is made by simultaneously impregnating activated C with a Pd precursor and an Al precursor. The C-supported Pd catalyst is useful for the hydrodechlorination of dichlorodifluoromethane to produce difluoromethane. The combined beneficial properties of both alumina and palladium and **activated carbon** to secure greater dispersion of alumina are an added advantage. The conversion of CFC-12 is on the order of 85% and the selectivity to HFC-32 is on the order of 85% at atmospheric pressure.

ACCESSION NUMBER: 2003:319493 CAPLUS

DOCUMENT NUMBER: 138:323029

TITLE: Synthesis of highly-active Al-modified carbon-supported palladium catalyst

INVENTOR(S): Murthy, Janmanchi K.; Shekar, Sridara C.; Ramarao, Kamaraju S.; Raju, Burri D.; Raghavan, Kondapuram V.

PATENT ASSIGNEE(S): India

SOURCE: U.S. Pat. Appl. Publ., 4 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003078461	A1	20030424	US 2001-983230	20011023
US 6624109	B2	20030923		
EP 1308206	A1	20030507	EP 2001-309134	20011029
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003126692	A2	20030507	JP 2001-332138	20011030
PRIORITY APPLN. INFO.:			US 2001-983230	A 20011023
OTHER SOURCE(S):			CASREACT 138:323029	

L14 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AB Thermal and catalytic cracking of both high and low-d. polyethylene (HDPE and LDPE, resp.) under mild conditions have been investigated in order to study the properties of the solid waxy product so obtained. The catalysts employed were nanometer HZSM-5 and HY zeolites, amorphous silica-alumina, **activated carbon**, Pd charcoal powder and mesoporous aluminosilicate materials (MCM-41), with and without impregnated Pd. The best results achieved in the LDPE degradation with regard to stability and homogeneity of the waxy product were obtained using MCM-41 as catalyst. The high BET surface area, uniform mesoporosity and medium acid strength of this catalyst promotes the polymer cracking according to a random scission mechanism, as well as, the development of hydrogen transfer reactions which reduce the olefinic character of the solid product. On

the other hand, the product obtained from HDPE has a higher homogeneity than that coming from LDPE, leading to a waxy product with better quality for potential applications.

ACCESSION NUMBER: 2001:256708 CAPLUS  
DOCUMENT NUMBER: 134:367650  
TITLE: Thermal and catalytic cracking of polyethylene under mild conditions  
AUTHOR(S): Van Grieken, R.; Serrano, D. P.; Aguado, J.; Garcia, R.; Rojo, C.  
CORPORATE SOURCE: Department of Experimental Sciences and Engineering, ESCET, Rey Juan Carlos University, Madrid, 28933, Spain  
SOURCE: Journal of Analytical and Applied Pyrolysis (2001), 58-59, 127-142  
CODEN: JAAPDD; ISSN: 0165-2370  
PUBLISHER: Elsevier Science B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AB A crack-free  $\text{LiAlO}_2$  monolith was prepared from lithium isopropoxide and **aluminum isopropoxide** by sol-gel processing using a drying control chemical additive (oxalic acid or DMF). The amorphous monolithic gel began to be transformed directly to  $\gamma\text{-LiAlO}_2$  from  $500^\circ$ . At  $600^\circ$ ,  $\text{LiAl}_5\text{O}_8$  started to appear, which was an indication of Li evaporation. The addition of a drying control chemical additive did not influence the formation of  $\gamma\text{-LiAlO}_2$  phase. DMF, used as a drying control chemical additive, was effective in decreasing cracks. Not only the increase of pore size, which resulted in decreased capillary stress, but also the narrowed pore size distribution, which resulted in decreased difference in capillary stress, made DMF effective in decreasing cracks. **Activated carbon** was also found to be a good additive for controlling porosity over a wide range.

ACCESSION NUMBER: 1996:739231 CAPLUS  
DOCUMENT NUMBER: 126:35606  
TITLE: Preparation of lithium aluminate monolith of controlled porosity by a sol-gel method  
AUTHOR(S): Jung, Jae-Myong; Park, Seung-Bin  
CORPORATE SOURCE: Dep. Chem. Eng., Korea Advanced Inst. Sci. Technol., Taejon, 305-701, S. Korea  
SOURCE: Journal of Materials Science Letters (1996), 15(22), 2012-2015  
CODEN: JMSLD5; ISSN: 0261-8028  
PUBLISHER: Chapman & Hall  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L14 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

AB The manufacture involves the following steps; (1) separately arranging activated C and metal alkoxides in sealed containers or in dry gas flow, (2) allowing the metal alkoxides to vaporize which are adsorbed by the activated C, and (3) contacting the activated C with water vapor to hydrolyze the metal alkoxides. The activated C is useful for adsorbents, catalyst supports, and other functional materials.

ACCESSION NUMBER: 1996:693867 CAPLUS  
DOCUMENT NUMBER: 125:332628  
TITLE: Manufacture of **activated carbon** carrying metal oxides  
INVENTOR(S): Nakajima, Keihachiro; Okada, Kaoru  
PATENT ASSIGNEE(S): Shinoji Seishi Kk, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08245210	A2	19960924	JP 1995-49716	19950309
PRIORITY APPLN. INFO.:			JP 1995-49716	19950309

=> PALLADIUM PRECURSOR  
 PALLADIUM IS NOT A RECOGNIZED COMMAND  
 The previous command name entered was not recognized by the system.  
 For a list of commands available to you in the current file, enter  
 "HELP COMMANDS" at an arrow prompt (=>).

=> S PALLADIUM PRECURSOR  
 148022 PALLADIUM  
 222213 PRECURSOR  
 L15 60 PALLADIUM PRECURSOR  
 (PALLADIUM(W) PRECURSOR)

=> S L15 AND HYDRODECHLORINATION  
 640 HYDRODECHLORINATION  
 L16 2 L15 AND HYDRODECHLORINATION

=> S L16 AND ALUMINUM ISOPROPOXIDE  
 873593 ALUMINUM  
 8153 ISOPROPOXIDE  
 2402 ALUMINUM ISOPROPOXIDE  
 (ALUMINUM(W) ISOPROPOXIDE)  
 L17 0 L16 AND ALUMINUM ISOPROPOXIDE

=> D L16 1-2 ABS IBIB

L16 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
 AB This study examines the influence of the preparation variables on the physicochem. properties of Pd/C catalyst and its performance in the **hydrodechlorination** of carbon tetrachloride and proposes a model of a palladium active site and its catalytic "modus operandi" which satisfactorily describes the chloroform formation from carbon tetrachloride. Several carbon-supported Pd (0.2-1.6 wt%) catalysts were prepared by incipient wetness impregnation of the support with H<sub>2</sub>PdCl<sub>4</sub> aqueous solns. and reduced at 523 K (CPd series). Addnl., five portions of the 1.0 wt% CPd precursor were reduced at 423, 473, 623, 723, and 823 K. Another two catalysts containing 1.0 wt% Pd were prepared in similarly to Pd(NO<sub>3</sub>)<sub>2</sub> and reduced at 523 K (NPd series). One of these last samples was calcined at 573 K prior to the reduction. The TPR results indicate that reduction of the CPd precursors is more difficult than that of NPd, which are reduced at subambient temperature. As shown by CO chemisorption, metal dispersion in NPd is lower than in CPd catalysts, in which dispersion decreases as the reduction temperature increases. XPS shows that Pd<sup>0</sup> and Pd<sup>n+</sup> species are present on the catalysts surface and that their proportion depends on the reduction temperature and the nature of the **palladium precursor**. All the catalysts containing both Pd<sup>0</sup> and Pd<sup>n+</sup> were active and highly selective in the **hydrodechlorination** of carbon tetrachloride to chloroform, whereas samples having only one of these species were inactive. The results indicate that both Pd<sup>0</sup> and Pd<sup>n+</sup> are required for the catalytic **hydrodechlorination** reaction and,

consequently, it is proposed that the active Pd site is dual in nature and is constituted by the association of the two species: electron-deficient and metallic palladium [Pd<sup>+</sup>-Pd<sup>0</sup>]. The **hydrodechlorination** activity is related to the Pd<sup>+</sup>/Pd<sup>0</sup> ratio and the maximum activity corresponds to Pd<sup>+</sup>/Pd<sup>0</sup>≈1. We propose that H<sub>2</sub> chemisorbs and dissociates on Pd<sup>0</sup> to give the covalent adatom Pd-H, whereas CCl<sub>4</sub> chemisorbs dissociatively on the same Pd<sup>+</sup> site by abstraction of the slightly nucleophilic chloride anion (Cl<sup>-</sup>), leading to the formation of the highly reactive activated complex [Cl-Pd<sup>0</sup>: CCl<sub>3</sub>]<sup>+</sup>. Interaction between the two surface species leads to chloroform and hydrogen chloride and to the regeneration of the active site.

ACCESSION NUMBER: 2002:502393 CAPLUS  
DOCUMENT NUMBER: 137:337533  
TITLE: Liquid-Phase **Hydrodechlorination** of CCl<sub>4</sub> to CHCl<sub>3</sub> on Pd/Carbon Catalysts: Nature and Role of Pd Active Species  
AUTHOR(S): Gomez-Sainero, Luisa Ma.; Seoane, Xose L.; Fierro, Jose L. G.; Arcoya, Adolfo  
CORPORATE SOURCE: Instituto de Catalisis y Petroleoquimica, CSIC, Cantoblanco, Madrid, 28049, Spain  
SOURCE: Journal of Catalysis (2002), 209(2), 279-288  
CODEN: JCTLA5; ISSN: 0021-9517  
PUBLISHER: Elsevier Science  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

AB Several catalysts containing 1 wt% Pd on carbon were prepared by incipient wetness impregnation of the support with H<sub>2</sub>PdCl<sub>4</sub> (CPd series) or Pd(NO<sub>3</sub>)<sub>2</sub> (NPd series) aqueous solns. Catalysts of the CPd series were reduced at 393, 523, 623 and 723 K, whereas two NPd samples (one calcined and the other uncalcined) were reduced at 523 K. The TPR results indicate that reduction of Pd precursor in CPd is more difficult than in NPd samples, which are reduced at sub-ambient temperature. As shown by CO chemisorption, metal dispersion in NPd is lower than in CPd catalysts, in which dispersion decreases as the reduction temperature increases. Anal. by XPS shows that Pd<sup>0</sup>

and

Pd<sup>+</sup> species are present on the catalysts surface and that their proportion depends on the reduction temperature and the nature of the **palladium precursor**. All the catalysts were active in the **hydrodechlorination** of carbon tetrachloride to chloroform, the CPd samples being more selective than the NPd ones. The activity is related to the Pd<sup>+</sup>/Pd<sup>0</sup> ratio, and a maximum was found for the value 1. The results are explained assuming that the active site is dual in nature [Pd<sup>+</sup>-Pd<sup>0</sup>]. Carbon tetrachloride is adsorbed and activated on Pd<sup>+</sup> and H<sub>2</sub> is adsorbed and dissociated on Pd<sup>0</sup>. Interaction between these two adsorbed species gives CHCl<sub>3</sub> and HCl.

ACCESSION NUMBER: 2000:566732 CAPLUS  
DOCUMENT NUMBER: 133:251958  
TITLE: Carbon-supported palladium catalysts for liquid-phase **hydrodechlorination** of carbon tetrachloride to chloroform  
AUTHOR(S): Gomez-Sainero, L. M.; Grau, J. M.; Arcoya, A.; Seoane, X. L.  
CORPORATE SOURCE: Instituto de Catalisis y Petroleoquimica, CSIC, Madrid, 28049, Spain  
SOURCE: Studies in Surface Science and Catalysis (2000), 130C(International Congress on Catalysis, 2000, Pt. C), 2009-2014  
CODEN: SSCTDM; ISSN: 0167-2991  
PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D HIS

(FILE 'HOME' ENTERED AT 11:38:07 ON 09 MAY 2005)

FILE 'REGISTRY' ENTERED AT 11:38:20 ON 09 MAY 2005

L1 38 S ALUMINUM ISOPROPOXIDE  
L2 0 S PALLADIUM PRECURSOR  
L3 0 S PALLADIUM CATALYST  
L4 0 S PALLADIUM (W) PRECURSOR  
L5 2 S PALLADIUM AND CATALYST  
L6 0 S L1 AND L5  
L7 1 S L1 AND PALLADIUM

FILE 'CAPLUS' ENTERED AT 11:43:04 ON 09 MAY 2005

L8 1 S L7  
L9 2402 S ALUMINUM ISOPROPOXIDE  
L10 60 S PALLADIUM PRECURSOR  
L11 0 S L9 AND L10  
L12 2 S L9 AND HYDRODECHLORINATION  
L13 2402 S ALUMINUM ISOPROPOXIDE  
L14 4 S L13 AND ACTIVATED CARBON  
L15 60 S PALLADIUM PRECURSOR  
L16 2 S L15 AND HYDRODECHLORINATION  
L17 0 S L16 AND ALUMINUM ISOPROPOXIDE

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NEWS	2	"Ask CAS" for self-help around the clock
NEWS	3 FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	4 FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADO
NEWS	5 FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	6 FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	7 MAR 02	GBFULL: New full-text patent database on STN
NEWS	8 MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	9 MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	10 MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	11 MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	12 MAR 22	PATDPASPC - New patent database available
NEWS	13 MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	14 APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	15 APR 04	EMBASE - Database reloaded and enhanced
NEWS	16 APR 18	New CAS Information Use Policies available online
NEWS	17 APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAPLUS and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	18 APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAPLUS
NEWS EXPRESS	JANUARY 10	CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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STRUCTURE FILE UPDATES: 8 MAY 2005 HIGHEST RN 850006-33-6

DICTIONARY FILE UPDATES: 8 MAY 2005 HIGHEST RN 850006-33-6

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\*  
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\* the IDE default display format and the ED field has been added, \*  
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\* available and contains the CA role and document type information. \*  
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=> S 39393-92-5/RN

L1 1 39393-92-5/RN

=> D L1

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 39393-92-5 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenoic acid, homopolymer, compd. with palladium(2+) diacetate and  
2-propanol aluminum salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Propanol, aluminum salt, compd. with palladium(2+) diacetate and  
2-propenoic acid homopolymer (9CI)

CN Acetic acid, palladium(2+) salt, compd. with 2-propanol aluminum salt and  
2-propenoic acid homopolymer (9CI)

OTHER NAMES:

CN Poly(acrylic acid) compd. with palladium acetate and aluminum isopropoxide

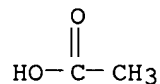
MF C3 H8 O . x (C3 H4 O2)x . x C2 H4 O2 . 1/3 Al . x Pd

PCT Polyacrylic

LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB



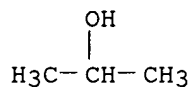
CRN 3375-31-3 (64-19-7)  
CMF C2 H4 O2 . 1/2 Pd



● 1/2 Pd(II)

CM 2

CRN 555-31-7 (67-63-0)  
CMF C3 H8 O . 1/3 Al



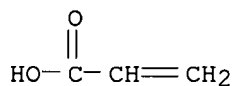
● 1/3 Al

CM 3

CRN 9003-01-4  
CMF (C3 H4 O2) x  
CCI PMS

CM 4

CRN 79-10-7  
CMF C3 H4 O2



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FILE CAPLUS  
COST IN U.S. DOLLARS  
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SINCE FILE ENTRY	TOTAL SESSION
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FILE COVERS 1907 - 9 May 2005 VOL 142 ISS 20  
FILE LAST UPDATED: 8 May 2005 (20050508/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L1

L2 1 L1

=> D L2 ABS IBIB

L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

AB Metal-containing polymer compns., potentially useful as catalysts were prepared by combining metals or oxides or salts with carboxyl-substituted polymers and optionally with inorg. supports, and thermally decarboxylating if desired. Thus, 2000 ml aqueous poly(acrylic acid) [9003-01-4] (mol. weight 1,000,000) solution containing 0.55 acid equivalent was mixed over 2 hr with

0.65

mole nickel hexanoate [16034-23-4] in 2000 ml dioxane and the precipitate dried at 100.deg., giving 29 g blue-green powder with sp. pore volume 0.16 ml/g, sp. surface 125 m<sup>2</sup>/g, average pore diameter 70.ang., and Ni content 17.4%

weight A

similar product, not dried as thoroughly, was decarboxylated 14 hr at 350.deg. and 2 hr at 375.deg., giving 65% wt. loss and a product with Ni content 52.4% and pore volume 0.15 ml/g. The products were useful as hydrogenation, oxidation, and cyclodehydration catalysts.

ACCESSION NUMBER: 1973:44295 CAPLUS

DOCUMENT NUMBER: 78:44295

TITLE: Metal-containing, polymer-based solid preparation

INVENTOR(S): Leonard, William John, Jr.; Holler, Howard V. A.

PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij N. V.

SOURCE: Ger. Offen., 50 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2213485		19720928		
CA 958150			CA	
CA 967934			CA	
FR 2130465			FR	
GB 1393005			GB	
NL 7203665			NL	
US 3779952		19730000	US	
PRIORITY APPLN. INFO.:			US 1971-126736	19710322

=> D HIS

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L1 1 S 39393-92-5/RN

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L2 1 S L1